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ABSTRACT

In an effort to inform space allocation decisions, Gainesville College (GC) in Georgia, undertook a project to analyze classroom usage for fall 1995 and make projections to the year 2000 based on annual enrollment increases of 3%. Factors potentially affecting the use of space were determined to include the following: (1) conversion to the semester system, which would result in gains in classroom space since two three-credit hour courses can be held in a classroom on each day of the week; (2) increasing the number of course offerings during GC's Activity Period, a morning session used for campus-wide events; (3) construction of a chemistry wing; and (4) potential increases in average class size. An analysis conducted of classroom use in six GC buildings indicated that the Science and Technology and Humanities and Social Sciences buildings were at maximum capacity in fall 1995, while there were no apparent usage problems for the Mathematics, Foreign Language, and Business building; Music and Art building; gymnasium; or Performing Arts building. Finally, with respect to enrollment projections, its was determine that given GC's current space, the maximum number of additional students that the college could handle is 300 and that this limit would be reached by the year 2000. A memorandum regarding the effects of converting to the semester system is appended. (TGI)

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ED 398 952

Space Utilization Analysis, Fall 1995

by

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Space Utilization Analysis
Fall 1995

Dr. John Hamilton

Purpose

The scheduling of classes is a difficult undertaking given relatively cramped conditions on campus and it raises many issues. For example, students prefer to come during the morning placing constraints on developing a more extensive afternoon schedule. Some students come at night. The Activity Period is an important component of student life on a commuter campus, but locks up a valuable teaching period during the morning hours. Space is reallocated to different uses over time as needs arise (e.g. conversion of classroom space to computer laboratories). Rooms within buildings are, for the most part, controlled by a given division and/or department. Changes in the curriculum affect space usage (e.g. impending switch to the semester system). Classroom space is utilized to some extent by Continuing Education and North Georgia College for education, nursing, and business courses.

The purpose of this report is to analyze the current and future usage of classroom space. This report provides an analysis of classroom usage on campus for the fall of 1995 and projects our enrollment into the year 2000 based on an annual increase of 4 percent.

Supporting Data

- *Percent Occupancy of Teaching Space by Building during the Fall of 1995*
- *Projected Enrollments in High Demand Courses: Fall 1995 to Fall 2000*
- *Quarter to Semester Conversion Affect on Space Usage*
- *Space Utilization Analysis: Fall 1995*

Factors that Influence Future Classroom Space Use on Campus

- ***Conversion to the Semester System***: Under the semester system, 3-hour classes are offered on a MWF (50 minutes each day) or TH (75 minutes each day) format. Thus the same room can handle two classes with overlapping time block. This results in a net gain of classroom

space that will help to alleviate crowded conditions in the Humanities/Social Science (Academic II) and Science (Academic I) buildings.

Under the semester system, one can expect over the course of an academic year to gain two daytime class periods per room in a given building for the purpose of scheduling classes as compared to the quarter system. The gain is multiplicative with the number of available classrooms in a given building. The net gain in lecture space may not hold true for science courses as compared to others given the need to schedule a wide selection of laboratories across the week (e.g. lecture classes on MWF with labs on T or H). Assuming that courses can be scheduled during overlapping time blocks within the week, conversion to the semester system is a means of acquiring space without capital costs.

Conversion to the semester system may result in the net loss of one currently required Area II mathematics or science elective. This might decrease the total number of offerings within these two curricular areas.

- ***Activity Period***: Increasing the number of offerings during the 11 AM Activity Period allows the College to gain classroom space. Even though it is a morning period in high demand for the scheduling of courses, many within the College are reluctant to encroach on it since it frees faculty and students for meetings, cultural events, study time, intramurals, etc.
- ***Chemistry Wing:*** Construction of a Chemistry addition to the Science and Technology Building for a gain of one to two chemistry laboratories.
- ***NGC Program Offerings***: In addition, to undergraduate offerings, North Georgia College may move its Associate Nursing Degree Program to the Gainesville College campus. NGC will begin offering a master's degree program in public administration at Gainesville College as of Spring Quarter 1996.
- ***Afternoon Classes***: Afternoon classes are not well attended by students. Some students will reduce their course load for a quarter rather than take afternoon classes. Nevertheless, this is an underutilized time period.
- ***Increase average class size:*** Increasing the average size of classes will in effect allow the College to gain space. The College traditionally tries to hold class size to as low a student to

teacher ratio as possible. Some classrooms on campus will not accommodate more than 25 or so students, thus this option will not universally work for every classroom.

Analysis of Classroom Use by Building

Academic I (Science and Technology)

During the morning time blocks from 8 AM to 12 Noon, Academic I is almost fully utilized. There is little room for expanding offerings during this time period. Currently, two of the lecture rooms also serve as science laboratories (175, 181), thus are not available throughout the day as classroom space when in use as laboratories. Several rooms are relatively small and are not able to handle more than 30 students (141, 175, 181, and 182). This could create problems if class size increases with conversion to the semester system.

Although the Math Department vacated the building in January 1995, little classroom space was gained. Room 140 is now used for storage and electrical equipment, two rooms (126 and 127) were lost to a computer lab and student tutoring center, room 162 was lost to a biology lab, and room 183 is used exclusively by North Georgia College for their nursing program.

An enrollment projection based on a four percent annual increase indicates that the Division of Natural Science and Technology should not expect demand to exceed the number of seats by a wide margin in most of the introductory courses. As a result of the fall of 1995 overcapacity observed in several high demand freshman courses, few new sections (e.g. Bio 105 and 107) will have to be added over the next five years. As a result, the Science and Technology Building should not be overly cramped for space in the foreseeable future, despite the current heavy utilization of the building. It should be noted that night offerings with relatively low numbers obscure otherwise crowded conditions during the daytime (e.g. Gly 125).

Space usage for Academic I will be impacted by the forthcoming construction of a chemistry wing with one to two new laboratories, conversion to the semester system, and expansion of North Georgia College's nursing program to Gainesville College will impact space usage. The new chemistry wing with modern laboratory facilities must be constructed due to safety and health concerns. This will free up several labs in Academic I for other usage.

Academic II (Humanities and Social Sciences)

Academic II is very close to being severely and chronically over utilized for daytime classes. It is a wonder that they do as well as they do when developing schedules across every quarter of the academic year. During the fall of 1995, foreign language courses were offered in two rooms (180 and 181) of Academic III (Math and Business) and a religion course was held in the Music/Art building. Scheduling problems in Academic II were alleviated to some extent by the enrollment downturn that occurred several years ago (300 student drop between the fall of 1992 with 2940 and the fall of 1993 with 2632) and the smoothing out of enrollments by Fresh Start (formalized in the summer of 1993) between fall and winter quarters. Enrollments are increasing slowly (Fall 1995 - 2646). The space problem extends to a lack of office space for new faculty. Moreover, North Georgia College offers evening courses in Academic II.

In order to meet increased demand, short- and long-term relief for scheduling of additional courses in Humanities and Social Sciences must come through some means to include: (1) use of available classrooms in Academic III, (2) offerings during the 11 AM Activity Period, (3) construction of additional classroom and office space, (4) offer more afternoon courses, (5) increase average class size, and (6) turn students away for lack of seats.

An enrollment projection based on a four percent annual increase through the year 2000 indicates that several introductory courses in Humanities and Social Science courses used in the analysis (e.g. Eng 101, Spc 108, His 252, Pol 101, Psy 101) will experience significant growth.

Academic III (Mathematics, Foreign Language, Business, and ACTT Center)

Academic III, which opened in January 1995, is the newest building to appear on campus. It houses the Department of Mathematics and the Division of Business, as well as, the ACTT Center. During the fall of 1995, the building was not fully utilized and will continue to have additional classroom space into the future. The availability of rooms in this building has not gone unnoticed by others on campus. Several rooms (180 and 181) are controlled by Humanities and designated for foreign language courses. Foreign language faculty have offices in AIII. Three rooms (157, 158, 160) are computer labs which are scheduled throughout the quarter by Byron Drew for a variety of computer-assisted courses on a first-come basis. The computer lab in room

158 is used heavily by the Business Division. The Mac Lab is used for Art courses. GCO 101 is offered in room 183. Regents' preparation courses (REP, RRP) are held in the ACTT Center (room 166). North Georgia College utilizes classroom and office space in Academic III. Classroom space in this building will be shared with others on campus for several years to come. It should be noted that all of the primary lecture rooms in Academic III accommodate no more than 31 students.

Music and Art Building

No apparent space usage problems occur in the scheduling of this building, but it is not well-suited to serve as a spillage area for expansion of courses from other areas.

Gymnasium

No apparent space usage problems occur in the scheduling of this building, but it is not well-suited to serve as a spillage area for expansion of courses from other areas. An expansion of the gymnasium complex to include classroom space would free up two classrooms (146 and 147), an office, and storage space in Academic II. Since Physical Education offerings are scheduled into Academic II, as well as the gymnasium, and since courses are offered on alternating days in the same room, the matrix of courses in the room utilization analysis does not give a complete representation of their classroom needs.

Performing Arts

No apparent space usage problems occur in the scheduling of this building, but it is not well-suited to serve as a spillage area for expansion of courses from other areas.

Classroom Utilization: Fall 1995
OPIR Analysis, Dr. Hamilton

December 1995

Percent Occupancy of Teaching Space by Building During the Fall of 1995

Bldgs	Lecture Rooms (N)	06:55 AM		08:00 AM		09:00 AM		10:00 AM		11:00 AM		12:00 PM		01:00 PM		02:15 PM		06:00 PM		08:20 PM	
		n	%N	n	%N	n	%N	n	%N	n	%N	n	%N	n	%N	n	%N	n	%N	n	%N
I - Science*	8		0.0	7	87.5	6	75.0	7	87.5		0.0	5	62.5	6	75.0		0.0	2	25.0	1	12.5
II- Hum/SS	18	1	5.6	13	72.2	17	94.4	17	94.4	12	66.7	17	94.4	13	72.2	2	11.1	11	61.1	9	50.0
III-Bus/Math*	18	1	5.6	10	55.6	12	66.7	16	88.9	5	27.8	11	61.1	4	22.2		0.0	11	61.1	6	33.3
Mus/Art	6		0.0	1	16.7	2	33.3	2	33.3		0.0	2	33.3	2	33.3		0.0	1	16.7		0.0
Gym	3		0.0	2	66.7	1	33.3	3	100.0	2	66.7	3	100.0	2	66.7	1	33.3		0.0	1	33.3
Perf Arts	3		0.0		0.0	1	33.3	1	33.3	1	33.3	2	66.7	1	33.3	1	33.3	1	33.3		0.0
Total	56	2	3.6	33	58.9	39	69.6	46	82.1	20	35.7	40	71.4	28	50.0	4	7.1	26	46.4	17	30.4

*Notes:
Several classes were scheduled into the same room, but on different days. If this occurred, only the first recorded instance of a class was counted. Hence, some counts do not accurately reflect the number of classes offered during a given time period. Some courses run from 1 PM to 3:15 PM.
Academic I: Science offerings shown for lecture only. Classroom count includes 175 and 181 which double as lecture and laboratory space.
Academic II: Room 182, the Distance Learning Lab is not included in the room count.
Academic III: Classroom count includes 2 of the 3 computer labs: Room 158 (BUA usage) and Room 160. The Mac lab in room 157 and the ACTT Center are not included.

Rooms Used in Analysis

	Rooms	Room Numbers
Academic I	***6***	Lecture: 117, 124, 130, 141, 153, 154
	2	Lecture and laboratory rooms: 175 and 181
	6	Laboratories: 118, 157, 161, 162, 174, 176
Academic II	***18***	Lecture: 101, 103, 107, 108, 126, 127, 129, 140, 141, 146, 147, 157, 158, 169, 170, 173, 175, 179
		Note: Classrooms 146 and 147 are reserved for the Physical Education Department
Academic III	***17***	Lecture: 132..135,138..141, 145, 146, 180, 181, 183..187 (Does not include ACTT Center and Computer labs)
	1	Lecture/PC Computer Labs: Room 158 (extensively used for BUA courses)
	2	Computer Labs: 157 (small Mac Lab, Art 150) and room 160
		Classes are scheduled into the computer labs (e.g. BUA 215, ART 150, CSC 230)
	1	Distance Learning Classroom: 182
	1	ACTT Center: 166 (REP courses offered in this space)
Gymnasium	***3***	Lecture and Gym: 129, 133, 158
Music/Art	***6***	Lecture and Practice: 104, 111, 112, 119..121
Perform Arts	***1***	Distance Learning Classroom: 115
	1	Lecture Classroom: 102
	1	Auditorium: 108
	1	Rehearsal Hall: 101
	1	B4 - Theatre Shop

Note: The rooms used for the totals in the occupancy table are bolded.

Projected Enrollments in High Demand Courses: Fall 1995 to Fall 2000
Gainesville College
Fall 1995

Dr. Hamilton, OPIR

Assumption: Number of sections offered and maximum enrollments remain the same as Fall 1995 base quarter for the next five years
Annual Enrollment Increase 4.0%

	Fall 95 - Base Quarter					Fall 96		Fall 97		Fall 98		Fall 99		Fall 2000	
	Sect	Std/Cls	Max	Enroll	Sts Lft	Enroll	Sts Lft	Enroll	Sts Lft	Enroll	Sts Lft	Enroll	Sts Lft	Enroll	Sts Lft
Humanities															
Eng 101	18	22	396	394	2	410	-14	426	-30	443	-47	461	-65	479	-83
Eng 102	9	25	225	205	20	213	12	222	3	231	-6	240	-15	249	-24
Eng 201	4	35	140	124	16	129	11	134	6	139	1	145	-5	151	-11
Eng 202	2	35	70	48	22	50	20	52	18	54	16	56	14	58	12
Spc 108	7	25	175	167	8	174	1	181	-6	188	-13	195	-20	203	-28
Math															
Mat 104	11	30	330	255	75	265	65	276	54	287	43	298	32	310	20
Mat 151	9	30	270	259	11	269	1	280	-10	291	-21	303	-33	315	-45
Mat 152	11	30	330	255	75	265	65	276	54	287	43	298	32	310	20
Sta 200	3	30	90	79	11	82	8	85	5	89	1	92	-2	96	-6
Science															
Bio 105	7	29	204	187	17	194	10	202	2	210	-6	219	-15	228	-24
Bio 107	3	24	72	81	-9	84	-12	88	-16	91	-19	95	-23	99	-27
Bio 250	2	24	48	46	2	48	0	50	-2	52	-4	54	-6	56	-8
Chm 111	3	30	90	38	52	40	50	41	49	43	47	44	46	46	44
Chm 121	3	30	90	83	7	86	4	90	0	93	-3	97	-7	101	-11
Evs 101	2	24	48	40	8	42	6	43	5	45	3	47	1	49	-1
Phy 127	2	30	60	36	24	37	23	39	21	40	20	42	18	44	16
Psc 101	3	30	90	72	18	75	15	78	12	81	9	84	6	88	2
Gly 125	3	30	90	61	29	63	27	66	24	69	21	71	19	74	16
Social Sciences															
His 251	5	28	140	134	6	139	1	145	-5	151	-11	157	-17	163	-23
His 252	6	28	168	172	-4	179	-11	186	-18	193	-25	201	-33	209	-41
Pol 101	10	28	280	259	21	269	11	280	-0	291	-11	303	-23	315	-35
Psy 101	8	28	224	217	7	226	-2	235	-11	244	-20	254	-30	264	-40
Soc 105	5	28	140	136	4	141	-1	147	-7	153	-13	159	-19	165	-25
Business															
Bua 110	6	25	150	104	46	108	42	112	38	117	33	122	28	127	23
Ecn 105	5	25	125	100	25	104	21	108	17	112	13	117	8	122	3
Ecn 106	3	25	75	73	2	76	-1	79	-4	82	-7	85	-10	89	-14
DS															
DSR 021	4	22	88	80	8	83	5	87	1	90	-2	94	-6	97	-9
DSE 031	7	22	154	145	9	151	3	157	-3	163	-9	170	-16	176	-22
DSM 010	6	25	150	126	24	131	19	136	14	142	8	147	3	153	-3
DSM 011	12	25	300	249	51	259	41	269	31	280	20	291	9	303	-3

Sect-Sections, Std/Cls-Students per Class, Max-Maximum enrollment in all sections (Sect*Std/Cls), Enroll-Actual enrollment for base year or a 4% increase over the previous year, Sts Lft-Seats Left (Max-Enroll)

Enrollments after the base quarter of fall of 1995 are 4% increases over the previous year.
Seats left is computed as the enrollment for a given quarter subtracted from the maximum enrollment of the base quarter (fall of 1994)
Negative values for the seats left column indicate that if the assumptions are accepted, then the demand for seats exceeds what is offered.

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Quarter to Semester Conversion
Facility Utilization: Gainesville College

Dr. Hamilton, OPIR

Number of Class Periods per Academic Year

Semester	32
Quarter	30

Conclusion The semester system offers two more daytime class periods per classroom in a given building over the academic year as compared to the quarter system. No facility problems should be encountered by converting from the quarter to the semester system if the assumptions of the study are held constant.

Assumptions

1. 50 minutes is equivalent to one quarter or one semester hour
2. 3 10-week quarters per academic year
3. 2 15-week semesters per academic year
4. Day and night classes will meet as indicated
5. Lecture classes will be 3 semester hours (3 + 1 for science) or 5 quarter hours (4 + 1 for science)
6. Time blocks indicated below are used
7. Science labs are scheduled independently of lecture and in separate rooms

Semester System: Scheduling for One Room

		Days of the Week				
Start	**End**	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**
0700	0750					
0800	0850					
0800	***0915***					
0900	0950					
0930	***1045***					
1000	1050					
1100	1150					
1100	***1215***					
1200	1250					
1230	***1345***					
1300	1350					
1400	1450					
1400	***1515***					
1800	***1915***					
1930	***2045***					
2100	***2215***					

Day Classes
Mon-Wed-Fri classes meet for 50' each

Tue-Thurs classes meet for 75' each

Night Classes
Tues-Thurs classes meet for 75' each

Time Blocks: Semester System			**Blocks**	**Sem/yr**	**Total**
Day	8	5	13	2	26
Night	0	3	3	2	6
Total	8	8	16	4	32

Quarter System: Scheduling for One Room

		Days of the Week				
Start	**End**	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**
0700	0750					
0800	0850					
0900	0950					
1000	1050					
1100	1150					
1200	1250					
1300	1350					
1400	1450					
1800	2010					
2020	2230					

Day Classes
Mon to Fri classes meet for 5 50' periods

Night Classes
Tues-Thurs classes meet for 2 hrs 10' each

Time Blocks: Quarter System			**Blocks**	**Qtrs/yr**	**Total**
Day	8		8	3	24
Night	0	2	2	3	6
Total	8	2	10	6	30

March 29, 1996

Classroom Space Availability for an Increasing Enrollment

Dr. John Hamilton, OPIR

Question: Estimate how many more students Gainesville College could "comfortably" handle in our current space?

My estimate is 300 new students for a total enrollment of 3050. If the College grows at the annual rate of 3 percent (this may be optimistic) and using the highest enrollment quarter as a base year (Winter 1996 with 2753 students), then this limit will be reached by the year 2000 with a projected enrollment of 3098 students. The rationale for this estimate with underlying assumptions is outlined below and it is admittedly subject to debate, especially the degree of "comfort" that varies by building. Nevertheless, it should provide food for thought. The impact of semester conversion on this estimate might be to increase it slightly thus gain another year or so, since classroom space increases slightly under the semester system because of alternating class days (MWF and TH class formats).

Enrollment Projections

Gainesville College is currently in a slow growth phase. Barring unforeseen circumstances, it is likely that this will persist for at least another year. Northeast Georgia is expanding its population base, higher education is valued, and the College enjoys a very high retention rate. Taken together and given current growth trends, the College can expect to grow at rates from 1 to 3 percent over the next five years. This means that relatively few new students will be added.

	1994-95	1995-96	One-Yr % Change
Fall	2642	2646	0.2
Winter	2684	2753	2.6
Spring	2523	2544*	1.1

*as of 3-29-96

If Gainesville College grows at the average rate of 3 percent per year (this may be high) from a base of 2753 (Winter of 1996), then subsequent winter quarter enrollments will be as follows: Winter 1997: 2835, Wtr 1998: 2920; Winter 1999: 3008; Winter 2000: 3098. Winter quarter was chosen as the base, since it experiences the highest enrollment.

Factors that Influence Classroom Space

Many factors interact to influence classroom space to include: enrollment projections, semester conversion, 11 AM activity period, admission requirements of area senior colleges and universities, afternoon and Saturday classes, average class size, demand for certain core curriculum courses, number of full-time faculty, continuation of Fresh Start, availability of part-

time faculty, how close class choices are to one another, class closings because maximum limit reached, major choices by students that dictate course choices, part- or full-time enrollment status of students, new construction like a Chemistry laboratory wing for Academic I, number of seats in available classrooms, student preference for morning schedules and an aversion to late afternoon classes because of work schedules, the bottleneck effect of the highest enrollment quarter (fall or winter), and NGC offerings.

Analysis of Classroom Use By Academic Buildings I, II, and III

Academic I (Science and Technology): Although room use decreases in the spring as compared to fall and winter, there is heavy usage of this building in the morning hours from 8 AM to 12 Noon. Few classrooms are unused at any given hour (one or two). Without increasing average class size or reallocating space, this building could not accommodate large increases in student numbers by expanding the morning schedule.

Academic II (Humanities and Social Sciences)

Academic II is severely and chronically cramped for space during the daytime. The space problem extends to a lack of office space for new faculty. Moreover, North Georgia College offers evening courses in Academic II.

Academic III (Mathematics, Foreign Language, Business, and ACTT Center)

Academic III is flush with classroom space as compared to the other two buildings on campus. Classroom space in this building can be shared with other divisions when spillage occurs.

Estimation of Students that Can Be Comfortably Handled

With the exception of cramped conditions in Academic II, Gainesville College handled the 2750 students enrolled at the College during the winter of 1996 within a reasonable comfort zone. There were class closings in high demand courses, especially during the morning hours, and disgruntled students who did not get their first choice schedules. All in all, in my opinion, the school managed to reasonably accommodate all students who walked through its doors. Assuming that faculty and support staff will increase as needed, that no new additions of classroom space will occur, and that students will take the courses used in the analysis below, I estimate the College can "comfortably" accommodate an additional 300 students. Beyond an additional 300 students, Gainesville College may have to provide additional classroom space through new construction to feel comfortable.

Assuming there are no mutually exclusive overlaps (every student can find two offerings at two different times) among the courses listed below that would be added to the schedule, then 225 students taking an average class load of 10 quarter credit hours (two 5-credit courses per quarter) can distribute into 16 high demand core classes and 2 DS courses (a total of 14 offerings) where the maximum class size is 25 (25 students/class * 18 new classes/students * 1 student/2 classes equals 225 students for the new classes offered). Almost all of the listed offerings below close out or come close to closing out with maximum enrollments during any given quarter during the morning time blocks. I assume that another 75 students can distribute to

some of the courses listed below that are already offered and not filled to capacity or distribute into courses that are not listed below.

Obviously, the greatest burden as far as space is concerned is the addition of 8 courses in Academic I. These new additions could go into the very few classrooms that are still available in the morning time slots and/or into the two wide open slots (7 AM and 2 PM) and/or move them to other buildings. Since students take an average class load of two 5-credit courses per quarter, it is critical that a student find two different and desirable courses at different times. Thus the new courses must be scattered throughout the day and the must come in a balanced manner from the various divisions. It is increasingly difficult to scatter courses because some time blocks are close to capacity and it is somewhat unreasonable to expect students to take two classes that are more than two or three hours apart. The expansion of offerings in Humanities and the Social Sciences in their current building is a significant bottleneck to enrollment growth. Academic Buildings I and II can absorb the new offerings listed below over the next five years.

Academic I
BIO 105 (2 sections); GLY 125; PSC 101, CHM 111

Academic II
ENG 101 (2 sections), 102; SPC 108; HIS 252; POL 101; PSY 101; DSE 031

Academic III
MAT 104 (2 sections), 151 (2 sections); DSM 011

Space Utilization Analysis: Fs962.txt 11/30/1995 (Thu)
Office of Planning and Institutional Research
After registration over.
LAST PAGE: Main Campus Courses Without Building Assignments
and Forsyth Courses

MATH, BUSINESS, ACTT (3) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
132		DSM 010		DSM 010	DSM 010		DSM 010	DSM 011		DSM 010	DSM 010	
133		DSM 011		DSM 011	DSM 011	DSM 011	DSM 011			DSM 011	DSM 011	
134		MAT 104		MAT 104	DSM 011	MAT 104	DSM 011	MAT 104		DSM 011	MAT 104	
135		MAT 151		MAT 151	MAT 104	MAT 151	MAT 104			MAT 104		
138		MAT 151		MAT 151	MAT 104		MAT 104			MAT 151		
139		MAT 152		MAT 152	MAT 152	MAT 152				MAT 253		
140		STA 200		STA 200	MAT 254		STA 200			MAT 253		
141					MAT 151							
146					MAT 151							
157				ART 150								
158				BUA 215	BUA 129			BUA 215		BUA 215*		
160		CSC 230										
166												
180		FRE 101		FRE 100	FRE 102		FRE 203			FRE 100		
181				SPN 101	SPN 203		SPN 101	SPN 100				
183					GCO 101					GCO 101		
184			BUA 110	BUA 110			BUA 110				BUA 110	
185					BUA 200		BUA 204					
186	ECN 105	ECN 106		ECN 105	ECN 106	ECN 105	ECN 106			BUA 110	ECN 105	
187					BUA 111						BUA 270	

Total Rooms: 20

* Potential Room Conflicts * (Room: Time/Course/Days)
3158 1800/BUA 215/(W)

No Time Given (CSN/Course/Room)
1721/REP 039/(3166), 1722/REP 039/(3166), 1723/RTP 049/(3166), 1791/RRP 029/(3166), 1792/RRP 029/(3166), 1101/MGT 111/(3185)

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 85
Potential Conflicts: 1, No Time Given: 6, No Time Match: 0, No Room Number: 0

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
101		SOC 105		SOC 260	SOC 105		SOC 293	SOC 105		SOC 260	SOC 105	
103				PSY 260	PSY 101		PSY 101	PSY 101		POL 101	PSY 101	
107		HIS 252		HIS 252	HIS 251	HIS 252	HIS 252	HIS 251		HIS 113		
108		HIS 251		HIS 114	HIS 113		HIS 251	HIS 252		HIS 252	HIS 251	
126				ENG 205	ENG 104		ENG 101	ENG 201		DSE 031	ENG 201	
127		ENG 102		ENG 102	ENG 201	ENG 102	ENG 102	ENG 102		ENG 102	ENG 102	
129				ENG 202	DSE 031	ENG 102	DSE 031	DSE 031	ENG 202			
140		SPC 108		SPC 108	SPC 108	DSE 031				SPC 108		
141		DSE 031		DSR 021	DSR 021	DSR 022	DSR 021				DSR 021	
146		CPE 200		CPE 200	CPE 200	CPE 200	CPE 200	CPE 200		CPE 200*		
147		CPE 102	CPE 102	CPE 102	CPE 102	CPE 102	CPE 102	CPE 102		CPE 102	CPE 102	
157				POL 101	POL 101		POL 101					
158					CRJ 201	SOC 105	POL 101					
169		SPN 101		SPN 102			SPN 100	ENG 210				
170		POL 111		EDU 203*	POL 101	POL 101	EDU 203*	POL 101				
173		ANT 102		PSY 101	PSY 258	PSY 101	PSY 260	PSY 101		ANT 102	POL 101	
175	ENG 101	ENG 101		ENG 101	ENG 101	ENG 101	ENG 101	ENG 101*			ENG 101	
179		ENG 101		ENG 101	ENG 101	ENG 101	ENG 101		ENG 101	ENG 101		

Total Rooms: 18

* Potential Room Conflicts * (Room: Time/Course/Days)
2146 1800/CPE 200/(W)
2170 0900/EDU 204/(MTWHF), 1200/EDU 204/(MTWHF)
2175 1300/ENG 101/(M W)

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 117
Potential Conflicts: 4, No Time Given: 0, No Time Match: 0, No Room Number: 0

MUSIC/ART (M) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
104												
111				MUS 234				MUS 204*				
112								MUS 143				
119							ART 110					
120					ART 120							
121		ART 200		REL 101	MUS 200		ART 200			MUS 200		

Total Rooms: 6

* Potential Room Conflicts * (Room: Time/Course/Days)
M111 1300/MUS 291/(T H)

No Time Given (CSN/Course/Room)
0221/MUS 181/(M104), 0211/MUS 161/(M111), 0222/MUS 161/(M111), 0219/MUS 272/(M112), 0210/MUS 161/(M112), 0214/MUS 171/(M112)

No Time Match (CSN/Course/Room/StartTime/Days)
0209/MUS 203/M111/1900/(M)

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 18
Potential Conflicts: 1, No Time Given: 6, No Time Match: 1, No Room Number: 0

SCIENCE (1) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
117		BIO 250		BIO 105	BIO 107			BIO 107				
124		EVS 101		PHY 227	PHY 127		PHY 127	BIO 212		PSC 103		
130		PSC 103		PSC 103	EVS 101		CHM 121	CHM 123				
141		BIO 107			BOT 121		CHM 240	BIO 250				
153		BIO 105		BIO 105	BIO 105		BIO 105	BIO 105		BIO 105		
154		CHM 121		CHM 121	CHM 111		CHM 111	CHM 111				
175					BIO 225							
181		GLY 125		GLY 125							GLY 125	

Total Rooms: 8

* Potential Room Conflicts * (Room: Time/Course/Days)
No Potential Conflicts Detected

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 34
Potential Conflicts: 0, No Time Given: 0, No Time Match: 0, No Room Number: 0

118	0730-0950	PHY 157	M					
	1315-1545	PHY 257		W				
	1315-1545	PHY 257			H			
	1315-1545	PHY 157	M					
	1315-1545	PHY 157		T				
	2020-2230	PSC 133			H			
157	0655-0950	CHM 151				F		
	1000-1250	CHM 141		T				
	1100-1400	CHM 141	M					
	1315-1615	CHM 151		W				
	1315-1615	CHM 151				F		
	1415-1715	CHM 141	M					
	1415-1715	CHM 151			H			
161	0655-0850	EVS 131		T		F		
	0900-1050	EVS 131		T		F		
	1300-1600	CHM 153		T	H			
	1415-1815	CHM 270		W				
162	0800-0950	BIO 137				F		
	0800-0950	BIO 280		W				
	1000-1150	BIO 137			H			
	1200-1350	BIO 280		W				
	1300-1450	BIO 137			H			
174	0800-0950	BIO 135		W				
	0800-0950	BIO 135				F		
	0800-0950	BIO 135		T				
	0800-0950	BIO 135			H			
	1000-1150	BIO 135			H			
	1200-1350	BIO 135			H			
	1200-1350	BIO 135		W				
	1200-1350	BIO 135	M					
	1800-2010	BIO 135	M					
175	1300-1450	BOT 151		T				
176	0900-1050	BIO 255		T	H			
	1300-1510	BIO 242	M					
181	0655-0850	GLY 155		T		F		
	0900-1050	GLY 155		T		F		
	1200-1350	PSC 133		W				
	1200-1350	PSC 133		T				
	2020-2230	GLY 155	M					

Total Lab Sections: 39

GYMNASIUM (P) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
129		CPE 105		CPE 100*	CPE 111*	CPE 114*	CPE 114*	CPE 108*	CPE 110		CPE 132	
133					CPE 228		CPE 227	CPE 109				
158		CPE 106*			CPE 106	CPE 106	CPE 134	CPE 116				

Total Rooms: 3

* Potential Room Conflicts * (Room: Time/Course/Days)
P129 0900/CPE 105/(M WH), 0900/CPE 110/(M WH), 1000/CPE 113/(M WH),
1000/CPE 129/(M WH), 1100/CPE 129/(M WH), 1200/CPE 129/(M WH), 1300/CPE 129/(M WH)
P158 0800/CPE 134/(M WH)

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 24
Potential Conflicts: 8, No Time Given: 0, No Time Match: 0, No Room Number: 0

PERFORMING ARTS (E) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000
0B4								DRA 10B*				
101							MUS 202					
102				SPC 108	SPC 108	SPC 108			DRA 115			
108										LAM 106		
115							MAT 151					

Total Rooms: 5

* Potential Room Conflicts * (Room: Time/Course/Days)
E0B4 1300/DRA 10B/(T H)

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 9
Potential Conflicts: 1, No Time Given: 0, No Time Match: 0, No Room Number: 0

LIBRARY/LRC (L) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000

Total Rooms: 0

* Potential Room Conflicts * (Room: Time/Course/Days)
No Potential Conflicts Detected

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 0
Potential Conflicts: 0, No Time Given: 0, No Time Match: 0, No Room Number: 0

STUDENT CENTER (C) 11/30/1995 Fall 1995

Room	0655	0800	0830	0900	1000	1100	1200	1300	1415	1800	2020	0000

Total Rooms: 0

* Potential Room Conflicts * (Room: Time/Course/Days)
No Potential Conflicts Detected

No Time Given (CSN/Course/Room)
All Courses Have Times Assigned

No Time Match (CSN/Course/Room/StartTime/Days)
All Classes Assigned a Time That Matches Defaults

No Room Number (CSN/StartTime/Course/Days)
All Classes Have Assigned Room Numbers

TOTAL CLASSES: 0
Potential Conflicts: 0, No Time Given: 0, No Time Match: 0, No Room Number: 0

NO BLDG GIVEN/FORSYTH (CSN/Course/Descr/Start) 11/30/1995 Fall 1995

0996	BUA	110	PRIN OF ACCT 1	1730 - Forsyth
0376	CHM	295	INDPEND STUDY	None
0596	CPE	200	PERSONAL HEALTH	1730 - Forsyth
1716	DSE	031	ENGLISH	1950 - Forsyth
1766	DSM	011	INTERM ALGEBRA	1730 - Forsyth
0752	ECE	103	MAT & METHODS	None
0997	ECN	105	MACRO ECONOMICS	1950 - Forsyth
0196	ENG	101	RHETORIC & COMP	1730 - Forsyth
0197	ENG	102	COMP & LIT	1950 - Forsyth
0198	ENG	201	WORLD LIT 1	1730 - Forsyth
0190	JPN	203	INTER JAPANSE 1	None
0152	LIN	29B	SPECIAL TOPICS	None
0496	MAT	104	COLL ALG W/APPL	1950 - Forsyth
0497	MAT	151	PRECAL ALGEBRA	1200 - Forsyth
0370	PLS	295	INTERNSHIP	None
0796	POL	101	AMER GOVERNMENT	1730 - Forsyth
0797	PSY	101	GEN PSYCHOLOGY	1950 - Forsyth
0199	SPN	100	BASIC SPANISH	1730 - Forsyth
0153	SPN	205	ADV COMP & CONV	None
0151	SPN	206	CRITICAL READIN	None

interoffice
MEMORANDUM

to: Magaret McGlaun
from: Dr. John M. Hamilton
subject: 1996-97 Enrollment Projections for Biology Offerings
date: April 3, 1996

Enclosed are the 1996-97 biology enrollment projections for fall, winter, and spring quarters based on a two percent increase in enrollment over the current 1995-96 academic year. This small percent increase is lower than previous years and may, in fact, be generous. There is nothing substantial to indicate that the College will experience significant growth in the upcoming year. There was essentially no growth from last year to the current year (Fall 94: 2642, Fall 95: 2644 - 0.1% increase; Wtr 95: 2684, Wtr 96: 2753 - 2.6%; Spr 95 - 2523, Spr 96 - about 15 or so more than the previous spring). Applications for the coming fall quarter are similar to those from last year at the same time. Thus there is no compelling reason to expect much in the way of growth so I used the 2 percent figure.

If you like, I can add all the biology labs to this inventory of offerings.

Biology Courses Used in the Analysis

Bio 103, 105, 106, 107, 108, 212, 213, 214, 225, 226, 250
Bot 121, 122

If a course in the above list was offered during a given quarter, then it is not included in the analysis for that quarter.

Cross Quarter Analysis of Courses 4/3/1996 (Wed)
Fall 95 vs Fall 96

Course	Fall 95 Sect	Max	Enroll	StsLft	Fall 96 Sect	Max	Enroll	StsLft	Pct Incr 2%	Var
BIO 105	7	204	187	17	7	204	187	17	191	13
BIO 107*	3	72	81	-9	3	72	81	-9	83	-11
BIO 212	1	24	16	8	1	24	16	8	16	8
BIO 250	2	48	46	2	2	48	46	2	47	1
BOT 121*	1	24	24	0	1	24	24	0	24	-0

% Increase = Fall 96.Enroll + (2% * Fall 96.Enroll)
Variance = Fall 95 - % Increase
*Variance < 0

Cross Quarter Analysis of Courses 4/3/1996 (Wed)
Wtr 96 vs Wtr 97

Course	Wtr 96 Sect	Max	Enroll	StsLft	Wtr 97 Sect	Max	Enroll	StsLft	Pct Incr 2%	Var
BIO 106	6	174	116	58	6	174	116	58	118	56
BIO 108	3	90	59	31	3	90	59	31	60	30
BIO 212	4	138	114	24	4	138	114	24	116	22
BIO 213	1	24	16	8	1	24	16	8	16	8
BOT 122	1	24	7	17	1	24	7	17	7	17

% Increase = Wtr 97.Enroll + (2% * Wtr 97.Enroll)
Variance = Wtr 96 - % Increase
*Variance < 0

Cross Quarter Analysis of Courses 4/3/1996 (Wed)
Spr 96 vs Spr 97

Course	Spr 96 Sect	Max	Enroll	StsLft	Spr 97 Sect	Max	Enroll	StsLft	Pct Incr 2%	Var
BIO 103	1	24	8	16	1	24	8	16	8	16
BIO 105*	5	111	111	0	5	111	111	0	113	-2
BIO 106*	3	72	75	-3	3	72	75	-3	77	-5
BIO 107	1	25	17	8	1	25	17	8	17	8
BIO 108	1	24	19	5	1	24	19	5	19	5
BIO 213*	3	96	95	1	3	96	95	1	97	-1
BIO 250*	1	14	26	-12	1	14	26	-12	27	-13

% Increase = Spr 97.Enroll + (2% * Spr 97.Enroll)
Variance = Spr 96 - % Increase
*Variance < 0